

# SHGetPathFromIDList

The destination string buffer must be long enough to hold the return file path.

Sean Barnum, Cigital, Inc. [vita<sup>1</sup>]

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## Part "Original Cigital Coding Rule in XML"

Mime-type: text/xml, size: 4101 bytes

<b>Attack Category</b>	<ul style="list-style-type: none"><li>• Malicious Input</li></ul>								
<b>Vulnerability Category</b>	<ul style="list-style-type: none"><li>• Buffer Overflow</li><li>• Unconditional</li></ul>								
<b>Software Context</b>	<ul style="list-style-type: none"><li>• Shell Functions</li><li>• File Path Management</li></ul>								
<b>Location</b>	<ul style="list-style-type: none"><li>• shlobj.h</li></ul>								
<b>Description</b>	<p>The destination string buffer for SHGetPathFromIDList() must be long enough to hold the return file path. Otherwise, buffer overflows will occur.</p> <p>SHGetPathFromIDList() converts an item identifier list to a file system path.</p>								
<b>APIs</b>	<table border="1"><thead><tr><th>Function Name</th><th>Comments</th></tr></thead><tbody><tr><td>SHGetPathFromIDList</td><td></td></tr><tr><td>SHGetPathFromIDListA</td><td>ASCII implementation</td></tr><tr><td>SHGetPathFromIDListW</td><td>Unicode implementation</td></tr></tbody></table>	Function Name	Comments	SHGetPathFromIDList		SHGetPathFromIDListA	ASCII implementation	SHGetPathFromIDListW	Unicode implementation
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<b>Method of Attack</b>	Buffer Overflow								
<b>Exception Criteria</b>									
<b>Solutions</b>	<table border="1"><thead><tr><th>Solution Applicability</th><th>Solution Description</th><th>Solution Efficacy</th></tr></thead><tbody><tr><td>When SHGetPathFromIDList() or a variant is called.</td><td>The second parameter, pszPath, must be at least MAX_PATH characters in length.</td><td>Effective.</td></tr></tbody></table>	Solution Applicability	Solution Description	Solution Efficacy	When SHGetPathFromIDList() or a variant is called.	The second parameter, pszPath, must be at least MAX_PATH characters in length.	Effective.		
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<b>Signature Details</b>	<pre>BOOL SHGetPathFromIDList( LPCITEMIDLIST pidl, LPTSTR pszPath );</pre>								

1. [http://buildsecurityin.us-cert.gov/bsi/about\\_us/authors/35-BSI.html](http://buildsecurityin.us-cert.gov/bsi/about_us/authors/35-BSI.html) (Barnum, Sean)

<b>Examples of Incorrect Code</b>	<pre>TCHAR pszPath[15]; // Buffer too small  [...] // get an item identifier list from somewhere if (! SHGetPathFromIDList(pidl, pszPath)) { /* handle error */ }</pre>					
<b>Examples of Corrected Code</b>	<pre>TCHAR pszPath[MAX_PATH]; // Buffer correctly sized  [...] // get an item identifier list from somewhere if (! SHGetPathFromIDList(pidl, pszPath)) { /* handle error */ }</pre>					
<b>Source Reference</b>	<ul style="list-style-type: none"> <li>• <a href="http://archives.neohapsis.com/archives/nbugtraq/2000-q1/0097.html">http://archives.neohapsis.com/archives/nbugtraq/2000-q1/0097.html</a></li> </ul>					
<b>Recommended Resources</b>	<ul style="list-style-type: none"> <li>• <a href="#">MSDN reference for SHGetPathFromIDList</a><sup>3</sup></li> <li>• <a href="#">MSDN information on The Shell Namespace and item ID lists</a><sup>4</sup></li> <li>• <a href="#">MSDN information on Working with Item ID Lists</a><sup>5</sup></li> </ul>					
<b>Discriminant Set</b>	<table border="1"> <tr> <td><b>Operating System</b></td> <td> <ul style="list-style-type: none"> <li>• Windows</li> </ul> </td> </tr> <tr> <td><b>Languages</b></td> <td> <ul style="list-style-type: none"> <li>• C</li> <li>• C++</li> </ul> </td> </tr> </table>	<b>Operating System</b>	<ul style="list-style-type: none"> <li>• Windows</li> </ul>	<b>Languages</b>	<ul style="list-style-type: none"> <li>• C</li> <li>• C++</li> </ul>	
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1. <mailto:copyright@cigital.com>